1.   **Summary of the Office Action**

Claim 1 stands rejected under § 102(b) as allegedly being anticipated by U.S. patent no. 5,115,309 (hereinafter "Hang").

Claims 1-6 stand rejected under § 102(e) as allegedly being anticipated by U.S. patent no. 6,240,103 (hereinafter "Schoenblum").

2.   **Response to § 102 Rejections**

Applicant respectfully traverses this rejection for the reasons set out below, and asks the Examiner for reconsideration.

To anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

i.   **HAND DOES NOT TEACH EVERY ELEMENT OF CLAIM 1**

Claim 1 includes the following limitations:

1.   A method for allocating media unit sequences among a plurality of output channels, the method comprising the steps of:
        generating **previous media unit sequence behavior pattern information reflecting at least one behavior pattern of at least one media unit sequence during at least one previous time period**;
        estimating at least one aspect of a **predicted overflow** in at least two output channels from the plurality of output channels, in response to (a) at least a portion of the **previous media unit sequence behavior pattern information**, and (b) at least two potential allocations of media unit sequences among the plurality of output channels; and
        selecting a selected allocation out of the at least two potential allocations in response to the at least one aspect of the predicted overflow.

9

Hang, on the other hand, discloses the following:

Each individual channel sharing factor, f(i,n), is an indication of the fraction of the overall channel bandwidth, C, allocated to video coder 102-i for supplying to the channel the contents of its sub-image for frame n. Channel allocation unit 103 supplies the channel sharing factors f(i,n) to each of video coders 102 over signal leads 109-1 through 109-N. *The channel sharing factors may be in any of several formats including but not limited to: a specification of the exact number of bits each video coder 102 is to produce for the current frame; a fractional number indicating the percentage of time allocated to each coder for transmission of the bits it produces for the current frame; or a quantizer step size, either average or fixed, to be employed.*

Hang, 4:59 – 5:4 (emphasis added).

The Office Action states that in Hang the channel sharing factors represent a predicted overflow of the channels. Detailed action, p. 3. However, as is evident from the passage above, the channel sharing factors in Hang are distinct and unrelated to a predicted overflow. Hang discloses a channel sharing factor that serves as an indication of the fraction of the overall channel bandwidth, but fails to disclose "estimating at least one aspect of a **predicted overflow** in at least two output channels from the plurality of output channels, in response to (a) at least a portion of the **previous media unit sequence behavior pattern information,** and (b) at least two potential allocations of media unit sequences among the plurality of output channels," as required by claim 1.

Because not every element of claim 1 is disclosed in Hang, claim 1 and its dependent claims are patentable and should be allowed.

ii.   SHOENBLUM DOES NOT TEACH EVERY ELEMENT OF CLAIM 1

Shoenblum is directed at detecting and preventing bandwidth overflow in a statistical multiplexer, wherein *the multiplexer allocates each bit stream a portion of the available bandwidth* such that no bit stream receives more than its maximum output rate. (Shoenblum, "Abstract.) On the other hand, Shoenblum does not disclose or even suggest "at least two

10

potential **allocations of media unit sequences among the plurality of output channels**," as required by claim 1. Similarly, Shoenblum fails to disclose or even suggest "estimating at least one aspect of a **predicted overflow** in at least two output channels from the plurality of output channels, in response to (a) at least a portion of the **previous media unit sequence behavior pattern information**, and (b) at least two potential allocations of media unit sequences among the plurality of output channels" or "selecting a selected allocation out of the at least two **potential allocations among the plurality of output channels** in response to the at least one aspect of the predicted overflow," as required by claim 1.

Furthermore, Shoenblum discloses the following:

The transmission controller 84(i) determines the rate at which packets from its corresponding bit stream 22 is output to medium 42. The actual rate determination is made by transmission rate controller ("TRC") 92, which at a minimum, bases its determination on the following information: *for at least a current picture in bit stream 22(0), the timing information 32 and the size of the current picture*. A Video Buffer Verifier (VBV) model 94, which is a model of a hypothetical bit buffer. VBV model 94 uses *the timing information and picture size information* to determine a range of rates at which bit stream 22 must be provided to the decoder's bit buffer 34 if bit buffer 34 is to neither overflow nor underflow. Transmission rate controller 92 provides the rate information to packet delivery controller 86, which uses the information from all of the transmission controllers 84 (0 . . . n) *to determine* during each time slice *how the bandwidth of transmission medium 42 should be allocated among the bit streams 22 during the next time slice*. The more packets a bit stream 22 needs to output during a time slice, the more bandwidth it receives for that time slice.

Shoenblum 6: 28-47.

Thus, Shoenblum discloses the VBV using the timing and picture size information to determine the range of rates at which a bit stream must be provided to the bit buffer to prevent over/underflow of the buffer. There is no indication that the timing and picture size information utilized in Shoenblum is not *a current picture in bit stream*. On the other hand, Shoenblum clearly discloses the TRC using *a current picture in bit stream*, as is evident from the passage above. This is distinct and in stark contrast with "generating **previous media unit sequence**

behavior pattern information reflecting at least one behavior pattern of at least one media unit sequence **during at least one previous time period,**" as required by claim 1.

Because not every element of claim 1 is disclosed in Shoenblum, claim 1 and its dependent claims are patentable and should be allowed.

3.   Conclusion

Having tendered the above remarks, Applicant respectfully submits that all rejections have been addressed and that the claims are now in a condition for allowance, which is earnestly solicited.

If there are any additional charges, please charge Deposit Account No. 02-2666. If a telephone interview would in any way expedite the prosecution of the present application, the Examiner is invited to contact Elena B. Dreszer at (408) 947-8200 ext. 209.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: _10-18-04_, 2004   _____

Elena B. Dreszer
Reg. No. 55,128

12400 Wilshire Blvd.
Seventh Floor
Los Angeles, CA 90025
(408) 947-8200

12